

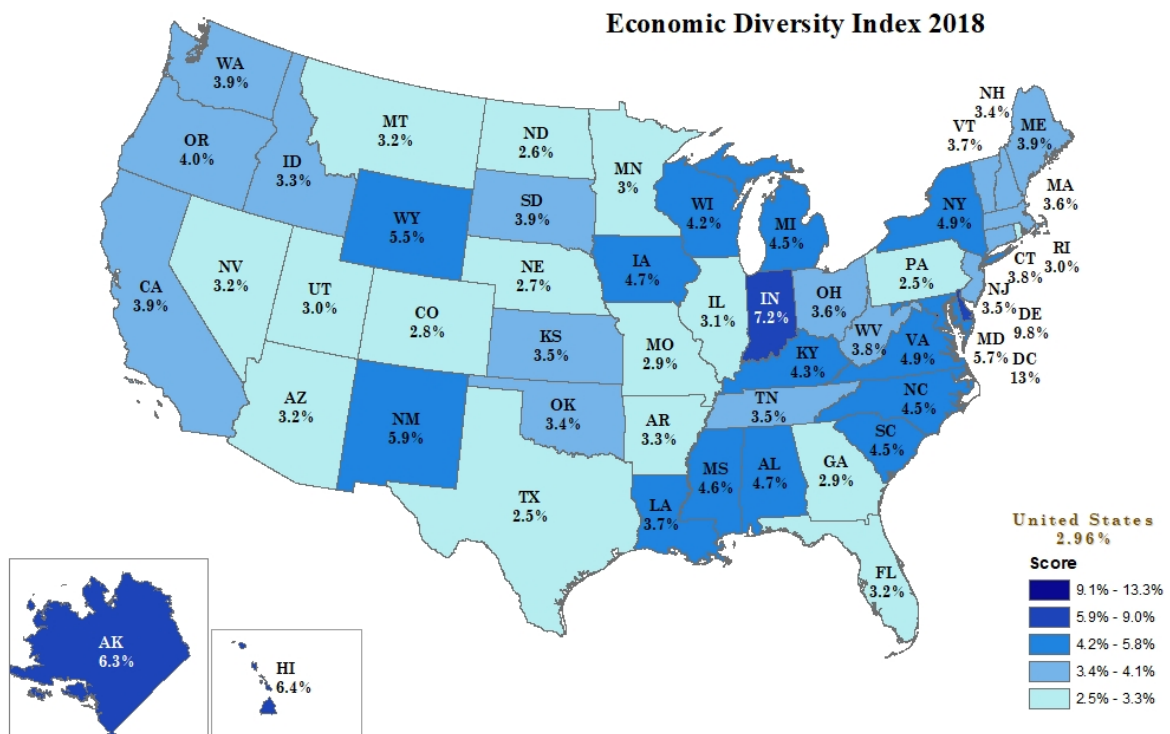


# Missouri Economic Indicator Brief: *Economic Diversity 2018*

## Diversification Index

A diversified economy is one with many industries that can better manage fluctuations in the business cycle. By contrast, a less diversified economy specializes in only a few industries. A state economy with a disproportionate number of workers in one specific industry would suffer should that industry fall on hard times; whereas, a diversified economy is more balanced. A balanced economy is capable of absorbing an economic shock through the other industries present. If a shock were to occur, other industries help to compensate for the loss by helping to maintain economic stability for that state.

In 2018, Pennsylvania was the most diversified state in the country followed by Texas, North Dakota, Colorado, and Nebraska. Missouri ranked sixth in the index<sup>1</sup>, up one from the previous year. The map below shows each state's 2018 score.



The lower a score, the more diversified a state's economy; the higher a score, the more specialized its economy.

## Gross Domestic Product

The broadest measure of economic activity is the Gross Domestic Product.<sup>2</sup> In calculating each state's diversification index, the gross product by industry was measured against total state gross product.

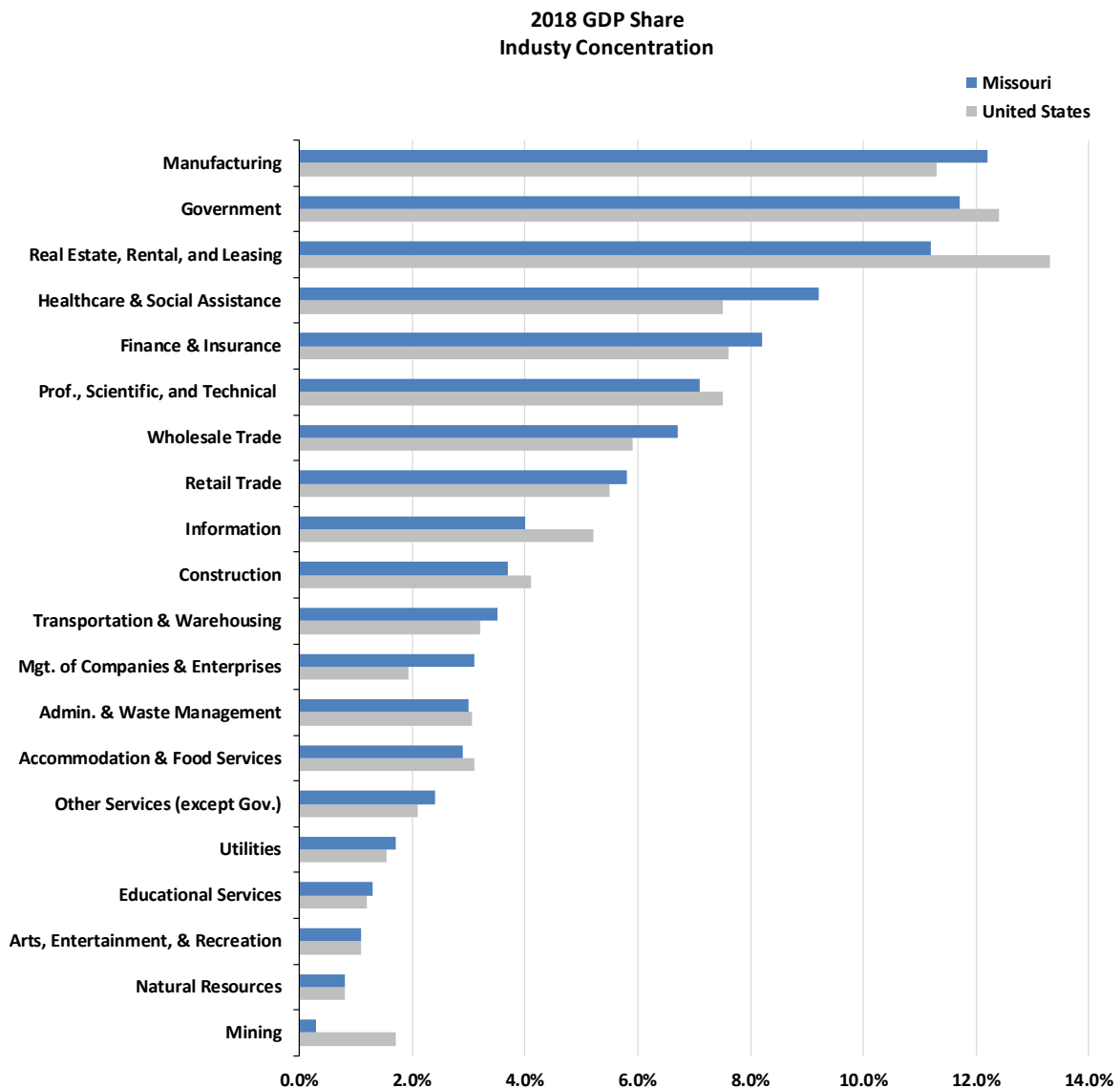
Missouri's total gross domestic product (GDP) increased from \$278.2 billion in 2017 to \$284.9 billion in 2018 in real terms. The state's top five industries, not including *Government*, are *Manufacturing* (12.2 percent of total GDP), *Real Estate* (11.2 percent), *Health Care* (9.2 percent), *Finance and Insurance* (8.2 percent) and *Professional, Scientific, and Technical Services* both at 7.1 percent.

Service sectors that experienced growth between 2017 and 2018 include *Finance and Insurance*, which grew 0.8 points from 7.4 to 8.2; *Healthcare & Social Assistance* and *Management of Companies and Enterprises* both grew by 0.2 points. Sectors that experienced a minor decline include *Manufacturing*, which declined 0.4 from 12.6 to 12.2; *Real Estate* declined 0.2 points from 11.4 to 11.2 percent; *Wholesale* and *Retail trade* both dropped 0.1 points.

Missouri Industry GDP Share			
Industry	2018	2017	Change from 2018-2017
Natural Resources	0.8%	1.1%	-0.3%
Mining	0.3%	0.2%	0.1%
Utilities	1.7%	1.7%	0.0%
Construction	3.7%	3.7%	0.0%
Manufacturing	12.2%	12.6%	-0.4%
Wholesale trade	6.7%	6.8%	-0.1%
Retail trade	5.8%	5.9%	-0.1%
Transportation & Warehousing	3.5%	3.4%	0.1%
Information	4.0%	4.0%	0.0%
Finance & Insurance	8.2%	7.4%	0.8%
Real estate and rental and leasing	11.2%	11.4%	-0.2%
Professional, Scientific, and Technical	7.1%	7.1%	0.0%
Management of Companies & Enterprises	3.1%	3.0%	0.2%
Administrative & Waste Management	3.0%	3.0%	0.0%
Educational Services	1.3%	1.3%	0.0%
Healthcare & Social Assistance	9.2%	9.0%	0.2%
Arts, Entertainment, & Recreation	1.1%	1.1%	0.0%
Accommodation & Food Services	2.9%	2.9%	0.0%
Other Services (except Government)	2.4%	2.4%	0.0%
Government	11.7%	12.0%	-0.3%

## State Industry Concentration

Industry concentration is another measurement based on industry GDP share analysis. The chart below compares the same industries across Missouri and the United States to help identify state-level industry concentrations. Three industries in particular have significantly higher GDP share concentrations in the State of Missouri than that of the United States including *Healthcare*, *Manufacturing*, and *Management of Companies & Enterprises*. Other concentrations in Missouri, which have higher rates than that of the nation, include *Wholesale Trade*, *Finance and Insurance*, *Retail Trade*, *Transportation & Warehousing*, *Other Services*, *Utilities*, and *Educational Services*.



## Notes:

### <sup>1</sup>Diversification Index

There are a handful of indices available to measure an economy's diversification: Herfindahl, Hachman, and competitive share among others. Data used to construct an index may include employment, earnings, per capita income, capital investment or gross domestic product. In this brief, a modified Herfindahl Index ( $H_i$ ) based on gross domestic product data was constructed.

$$H_i = \left\{ \sum_{i=1}^n \frac{GDP_i}{GDP_s} \times \left( \frac{GDP_i}{GDP_s} - \frac{1}{n} \right)^2 \right\} * 100$$

Where **n** is the number of industries in the state economy, and **GDP<sub>i</sub>** is the gross domestic product for each industry (**i**) in the state, and **GDP<sub>s</sub>** is a state's total gross domestic product. The number of industries (**n**) analyzed in each state (**s**) is constant. Thus, the analysis focuses on the distribution of GDP. Those states with an index value closer to 0 are more diversified.

### <sup>2</sup>Gross Domestic Product

A state's Gross Domestic Product is estimated by the U.S. Bureau of Economic Analysis. This estimate is the sum of value-added from each industry in the state for a given time period. Value-added is effectively an industry's net revenue: income minus costs of production.

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